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Wildlife Research Projects

ACTIVE IN BRITISH COLUMBIA

APRIL 1989 TO MARCH 1990

BC
Ministry of Environment
June 1990

92-06519/

WILDLIFE RESEARCH PROJECTS ACTIVE IN BRITISH COLUMBIA APRIL 1989 to MARCH 1990

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Introductory remarks

This information circular lists all research projects known to be active in British Columbia in the period from April 1989 to March 1990. The purposes of this circular are: 1) to list active wildlife research projects with respect to species studied, location, status, purpose and principal contacts, 2) to promote communication and cooperation among wildlife researchers working in the province, 3) to promote a greater awareness of the number of individuals and agencies conducting wildlife research, and 4) to foster development of a B. C. Wildlife Research network.

As this is a first attempt to catalogue research projects, it will contain errors and omissions. Please be assured that none of these are deliberate! Next years list will only be better than this one if you let us know of any errors, omissions, or upcoming projects.

Of course, the question of what projects should be included will be asked. For present purposes, we erred on the side of inclusion rather than exclusion. If someone felt that their study was research, it was included. In general, most listed projects are postgraduate theses and government projects that are characterized by the types of activities usually associated with research endeavors.

User's Guide

Projects are divided broadly into two groups. The first group, numbers 1 to 90, consists of studies listed in alphabetical order by the common name of a species or group of species, as provided by the submitting researcher. A few peculiarities occur. For example, a project dealing with a group of species such as seabirds, is listed under "seabirds". Studies focusing on groups of species or systems, or are habitat-oriented are listed in the second group, numbers 91-104, under the broad heading of topics.

Locations are usually the nearest settlement, major geographical feature, or in a few cases, the range of a species. Status should be self-explanatory. Agency means those organizations principally involved in the project. Most projects receive support from many agencies and likely some names are omitted. Again, these omission are not intentional: in future, we will leave it up to the submitter of the information to list the agencies. At the end of this section is a list of abbreviations we used for organization.

For brevity, we have restricted descriptions of projects to 12 or less words. This guideline can be changed if submitters are willing to do the extra work, and if there is strong lobby to do so. Contacts are self-explanatory.

WILDLIFE RESEARCH AND DEVELOPMENT PROJECTS ACTIVE IN BRITISH COLUMBIA IN 1989-1990

GROUP ONE - SPECIES ORIENTED

No.	Species Studied	Location	Status	Agency	Purpose	Contact
1	Ancient Murrelet	Reef Island, Queen Charlotte Islands	4 of 5 yrs	CWS	Population dynamics	Tony Gaston (819)-997-6121
2	Bald Eagle	Fraser River delta	3 of 3 yrs	UBC/WHC	Impact of logging on nesting and roosting habitat	Fred Bunnell 228-5724
3	Barrow's Goldeneye	Riske Creek	6 of 6 yrs	CWS	Population dynamics	Jean-Pierre Savard 946-8546
4	Black Bear	Flathead River valley	2 of 4 yrs	SFU	Interactions with grizzly bears	Fred Hovey or Alton Harestad 291-4809
5	Black Bear	Southwest B.C.	1 of 1 yr	MOE	Determining age of first reproduction	Bob Forbes 584-8822
6	Black-tailed Deer	Caycuse	3 of 5 yrs	MOF/MOE (IWIFR)	Juvenile learning and feeding habitats	Jeff Morgan 228-5724, Scott McNay 387-6711
7	Black-tailed Deer	Vancouver Island	9 of 10 yrs	MOF/MOE (IWIFR)	Impact of intensive forestry on habitat and populations	Scott McNay 387-6711, Don Doyle 758-3951
8	Black-tailed Deer	Vancouver Island/ Lower Mainland	4 of ? yrs	MOF/MOE (IWIFR)	Creating winter range in managed forests	Dale Seip 660-7530, Les Peterson 387-3177
9	Black-tailed Deer	Vancouver Island	1 of 3 yrs	UBC	Managed stands for winter range	Fred Bunnell or Laurie Kremsater 228-5724, Nick Smith 755-3517
10	Black-tailed Deer/ Roosevelt Elk	Vancouver Island	2 of 4 yrs	MOE/MOF (IWIFR)	Habitat assessment and planing, using GIS, at the watershed level of management	Marvin Eng 387-9797, Scott McNay 387-6711, Rick Page 387-2710
11	Black Tern	Creston	3 of 3? yrs	SFU	Foraging behavior of parents	Clive Welham or Ron Ydenberg 291-4475
12	Bobcat	East Kootenay	2? of ? yrs	MOE/UC	Effect of harvest on population dynamics	Anna Wolterson-Strauss 426-1450, Trevor Finlay, U. Calgary
13	Brant	Strait of Georgia	3 of 5 yrs	CWS	Habitat distribution abundance	Neil Dawe 752-9611
14	Bushy-tailed Woodrat	Thompson/Cariboo/ Chilcotin regions	3 of 4 yrs	RBCM	Analysis of middens for paleoenvironmental studies, use of middens, biology	David Nargosen 387-2933
15	California Bighorn Sheep	Yalakom River/ West Fraser River areas	2 of 4? yrs	MOE	Seasonal movement investigation	Phil Holman 374-9717

Future Directions

We invite feedback on the value of continuing with this type of document, as well as on errors and omissions. If there is strong interest in continuing with this circular, it will happen. Otherwise, this will be a once-only effort.

Personally, we would like to see this become a regular production of what we could call the B. C. Wildlife Research Group. Whether or not a BCWRG becomes anything more than this, remains to be seen. However, we see a lot of advantages in strengthening the existing, although incomplete, network of wildlife researchers in this province. We were struck by the number and diversity of projects.

Acknowledgments

As with any cooperative effort, this listing depended upon contributions from many individuals. We would like to thank all those who contributed to this first circular, in particular, Harold Armleder, Fred Bunnell, Rob Cannings, Bob Forbes, Alton Harestad, Bill Harper, Phil Holman, Brian Nyberg, Bruce Pendergast, Brian Stushnoff, Steve Wetmore and Guy Woods.

Abbreviations of agencies

BCH - British Columbia Hydro and Power Authority
CPS - Canadian Parks Service
CWS - Canadian Wildlife Service
DCF - Donner Canadian Foundation
FRDA - Forest Resources Development Agreement
IDFG - Idaho Department of Fish and Game
IWIFR - Integrated Wildlife Intensive Forestry Research
MCMF - Mountain Caribou in Managed Forests
MOE - Ministry of Environment
MOF - Ministry of Forests
MOP - Ministry of Parks
MOTH - Ministry of Transportation and Highways
RBCM - Royal British Columbia Museum
SABR - Spatsizi Association for Biological Research
SFU - Simon Fraser University
UA - University of Alberta
UBC - University of British Columbia
UC - University of Calgary
USFS - United States Forest Service
USFWS - United States Fish and Wildlife Service
UVIC - University of Victoria
WHC - Wildlife Habitat Canada
WWF - World Wildlife Fund Canada

No.	Species Studied	Location	Status	Agency	Purpose	Contact
30	Forest Birds	Kootenay National Park	1 of 2 yrs	SFU	Diversity and seral stage	Danny Catt or Alton Harested 291-4512
31	Great Blue Heron	Gulf of Georgia	? of ? yrs	CWS/UBC	Impact of toxic chemicals on population dynamics	Phil Whitehead 946-8546, Kim Cheng 228-4593, J. Steeves or Diane Henshel 228-2416
32	Great Blue Heron	Lower Fraser Valley and Gulf Islands	3 of 4 yrs	CWS	Population dynamics	Rob Butler 946-8546
33	Grizzly Bear	Kimsquit River valley	7 of 8 yrs	MOE/MOF/ WHC	Impact of forest developments on habitat	Tony Hamilton 387-9761
34	Grizzly Bear	Flathead River valley	10 of on-going study	UBC/MOE/ USFWS	Population ecology and habitat needs in relation to resource development	Bruce McLellan 963-9651, Ray Demarchi 426-1456
35	Grizzly Bear	Khutzeymateen River valley	1 of 4 yrs	MOE/MOF	Impact of potential forest development on bears and their habitats	Tony Hamilton or Grant MacHutchon 387-9761
36	Grizzly Bear	Southern Selkirks	2 of 3 yrs	UBC/MOE	Habitat selection, population dynamics, and social behavior	Rob Wielgus 228-5724, Guy Woods 354-6341
37	Grizzly Bear	Coastal B.C.	2 of 2 yrs	FRDA/ MOF/MOE	Impact of glyphosate herbicide on grizzly bear forage	Colleen Bryden 387-0705, Tony Hamilton 387-9761
38	Gulls, Cormorants, Oystercatchers	West Coast, Vancouver Island	1 of 3 yrs	CWS	Interspecific competition and population dynamics	Kees Vermeer 356-6537
39	Killer Whales	South Coast	2 of 2 yrs	SFU	Foraging behavior	Robin Baird or Larry Dill 291-4475
40	Least Sandpiper	Queen Charlotte Islands	5 of 5 yrs	RBCM/ UVIC	Demography and breeding biology	John Cooper 387-2927, Ted Miller 387-2107
41	Marbled Murrelet	Coastal B.C.	1 of ? yrs	CWS	Habitats and distribution abundance at sea and in forest	Gary Kaiser or Jean-Pierre Savard 946-8546
42	Marten	Emerson Creek near Houston	2 of 5 yrs	MOE/SFU/ MOF	Habitat relationships in subboreal forests	Eric Lofroth 847-7271, Alton Harestad 291-4809, Don Eastman 387-9796
43	Marten	Nanaimo River valley	3 of 3 yrs	MOE/SFU	Habitat selection	Judy Baker or Alton Harestad 291-4809

No.	Species Studied	Location	Status	Agency	Purpose	Contact
16	Caribou	Wells Grey Provincial Park	3 of 3 yrs	MOP	Movements and seasonal habitat needs	Dale Seip 660-7530, Bob Scheer 828-4501
17	Caribou	Quesnel Highlands	5 of 5 yrs	MOF/MOE	Movements and seasonal habitat ranges	Dale Seip 660-7530, Daryll Hebert 398-4564
18	Caribou	Selkirk Mountains	? of ? yrs	MOE/IDFG/ USFWS	Habitat relationships and parameters and transplant success	Guy Woods 364-6341, Brad Compton or Gregg Servheen (208)267-7783
19	Caribou	East Central to Southeast B.C.	2 of 5 yrs	MOE/WHC/ MOF(MCMF)	Movements and winter range creation for "mountain" caribou	Susan Stevenson 564-5695, Ken Child or Glen Watts 564-6425
20	Caribou	Tumbler Ridge, Dawson Creek Forest District	1 of 5? yrs	MOE	Effect of forest management on habitat use and poulation dynamics	Rob Thomson 787-3288
21	Caribou	Graham River	3 of onging	MOE	Effect of forest management on habitat use and population dynamics	Rob Thomson 787-3288
22	Caribou	Itchas, Ilgachuz, Rainbow Mountains and Tweedsmuir Park	5 of 5 yrs	MOF/MOE/ MOP/UBC	Habitat use patterns and population dynamics	Debbie Cichowski or Dale Seip 660-7530, Daryll Hebert 398-4564
23	Caribou	Cariboo Forest Region	1 of ? yrs	MOF	Integrating habitat needs and forest management	Harold Armleder 398-4407
24	Cormorants	Coastal B.C.	1 of ? yrs	CWS	Impacts on population dynamics and toxic monitoring	Phil Whitehead or John Elliott 946-8546
25	Cougar	Junction Wildlife Management Area	? of ? yrs	MOE/UBC	Population dynamics and predation behaviour	Daryll Hebert or Scott Harrison 398-4564
26	Deer Mice	Nanaimo River	2 of 2 yrs	SFU	Cover and habitat use	Dave Carter or Alton Harestad 291-4512
27	Empidonax Flycatchers	Province-wide	1 of 3 yrs	RBCM/UBC	Acoustic signalling and distribution	Richard Cannings 228-4665, Ted Miller 387-2107
28	Fisher	Williams Lake	1 of 3 yrs	MOE	Population dynamics and habitat selection	Randy Wright 398-4565, Daryll Hebert 398-4564
29	Flammulated Owl	Kamloops vicinity	1 of 2 yrs	UBC/MOE	Nesting and feeding habitats	Fred Bunnell 228-5724, Fred Harper 374-9717

No.	Species Studied	Location	Status	Agency	Purpose	Contact
59	Porcupine	Kitsumkalum valley near Terrace	1 of ? yrs	MOF/UBC	Population dynamics and tree damage in managed and unmanaged stands	J. Krebs, Andrea Lawson, or Tom Sullivan 228-5724
60	Ptarmigan	Chilkat Pass	ongoing	UA	Population ecology	Sue Hanon, U. of Alberta
61	Raccoon	Louise Island, Queen Charlotte Islands	1 of 4 yrs	MOE/UVIC/ CWS/CPS	Impact of raccoons on colonies of burrow-nesting seabirds	Lisa Hartman or Don Eastman 387-9796, Al Edie 847-7298
62	Red-naped Sapsucker	Hat Creek	2 of 3 yrs	RBCM	Demography and behavioral ecology	Ted Miller 387-2107
63	Rhinoceros Auklet	Pine Island	2 of 3? yrs	SFU	Fledging	Ann Harfenist or Ron Ydenberg 291-4475
64	Roosevelt Elk	Nahmint River valley	2 of 3 yrs	MOE/MOF/ UVIC	Testing a habitat suitability model	Kim Brunt or Doug Janz 758-3951, Don Eastman 387-9796
65	Northern Saw-whet Owl	Okanagan Valley	5 of ongoing	UBC	Breeding biology, success, and range size	Richard Cannings 228-4665
66	Seabirds	West Coast Vancouver Island	1 of 1 yr	CWS	Impact of Nestucca oil spill	Gary Kaiser 946-8546
67	Seabirds	Coastal B.C. Vancouver Island	8 of 9 yrs	CWS	Colony inventory and population status	Gary Kaiser 946-8546
68	Seabirds	West Coast Vancouver Island	1 of 2 yrs	CWS	Distribution and abundance offshore	Kees Vermeer 356-6537
69	Seabirds	Coastal B.C.	ongoing	CWS	Chlorinated and heavy metals in seabirds	Phil Whitehead or John Elliott 946-8546
70	Seabirds	Coastal B.C.	1 of 1? yr	MOE/UVIC	Oil spill toll on seabirds and current drift patterns	Debbie Hlady 387-9654
71	Snow Geese	Fraser Delta	3 of 4 yrs	CWS	Forage and habitat use	Sean Boyd 946-8546
72	Snow Geese	Fraser Delta	4 of ? yrs	CWS	Distribution abundance and population dynamics	Rick McKelvey 946-8546
73	Squirrel	100 Mile House	? of ? yrs	UBC	Territory in relation to food supply	Walter Klenner 228-4595
74	Stone Sheep	Williston Reservoir	1 of ? yrs	MOE	Population dynamics and habitat use of transplanted sheep	Peter Davidson 787-3499

No.	Species Studied	Location	Status	Agency	Purpose	Contact
44	Marten	Coastal B.C. and Alaska	6 of 8 yrs	RBCM	Size variation, sexual dimorphism, and diet among island and mainland populations	David Nagorsen 387-2933
45	Meadow Vole	Creston	2 of 3 yrs	SFU	Effects of predation risk and density on reproduction	Mike Dehm or Larry Dill 291-4475
46	Mergansers	Simon Fraser University	ongoing	SFU	Risk of predation on fish	Guy Martell or Larry Dill 291-4475
47	Migratory Birds and Raptors	Boundary Bay	1 of 2 yrs	CWS	Upland habitat use and needs	Rob Butler 946-8546, Dave Dunbar 584-8822'
48	Moose	Thompson-Nicola, Cariboo, and Omineca areas	ongoing	MOE/UBC	Evaluation of selective moose harvesting strategies	Rob Thomson 787-3288, Fred Bunnell 228-5724
49	Moose	Coquihalla-Okanagan Connector	3 of 5 yrs	MOE/MOTH	Impact of highways on movement patterns and population dynamics	Keith Simpson or Les Gyug 531-2894 or 767-2906
50	Mule Deer	Fort St. John	3 of 3 yrs	MOE	Winter habitat needs in agricultural lands	Rob Woods 787-3287
51	Mule Deer	Coquihalla-Okanagan Connector	3 of 5 yrs	MOE/MOTH	Impact of highways on movement patterns and population dynamics	Keith Simpson or Les Gyug 531-2894 or 767-2906
52	Mule Deer	Coquihalla-Okanagan Connector	2 of 2 yrs	SFU	Cover requirements	Anne Rahme or Alton Harestad 291-4809
53	Mule Deer	Cariboo Forest Region	9 of 10 yrs	MOF/MOE	Integrating winter range habitat needs and forest management	Harold Armleder 398-4407
54	Mule Deer	Arrow Lakes	2 of 5 yrs	MOE	Movements, seasonal habitat ranges, and population dynamics	Don Miller 354-6163, Guy Woods 354-6341'
55	Northwestern Crow	Mitlenatch Island	ongoing	SFU	Ecology	Nico Verbeek 291-4475
56	Osprey	Kootenay	2 of 2? yrs	SFU	Juvenile learning	Marlene Machmer or Ron Ydenberg 291-4475
57	Osprey	West Arm of Kootenay Lake	3 of 4 yrs	SFU/MOE	Nesting success, behavior, and interactions with Canada geese	Chris and Marlene Stager 357-2246, Ron Ydenberg 291-4890, Guy Woods 354-6341
58	Pacific-slope Flycatcher	Queen Charlotte Islands	1 of 1 yr	RBCM/ UVIC	Acoustic signalling and breeding biology	Daryll Ainsley 721-8099, Ted Miller 387-2107

GROUP TWO - TOPIC OR HABITAT ORIENTED

No.	Topic Studied	Location	Status	Agency	Purpose	Contact
91	Aquaculture/Wildlife	Coastal B.C.	3 of 3 yrs	CWS	Interactions and impacts	Steve Wetmore 946-8546
92	Biodiversity/ Old Growth	Coastal B.C.	1 of 5 yrs	MOF/CWS	How can wildlife diversity be maintained in managed forests?	Dale Seip 660-7530, Jean-Pierre Savard 946-8546
93	Desert	Osoyoos	1 of 2 yrs	CWS	Ecosystem distribution, abundance, and dynamics	Ken Redpath 946-8546
94	East Kootenay Herpetological Survey	Larchwood/Johnson Lakes (Painted Turtle), Flathead Valley (Tailed Frogs)	3 of 5 yrs	RBCM	Species survey, biogeography, and population status	Stan Orchard 387-2940
95	Estuaries	East Coast Vancouver Island	9 of ? yrs	CWS	Bird use and vegetation dynamics of various estuaries	Neil Dawe 752-9611
96	Flathead System Study	Flathead River valley	1 of ? yrs	MOF	Interactions among large mammalian predators and their prey	Bruce McLellan 963-9651, Dan Pletscher (406)-243-5521
97	Hat Creek Herpetological Survey	Hat Creek area	2 of 2 yrs	RBCM	Species survey and biogeography	Stan Orchard 387-2940
98	Lichen Studies	Columbia River, North of Revelstoke	2 of 10? yrs	MOE	Lichen production in thinned second growth	Larry Ingham 354-6163, Guy Woods 354-6341, Susan Stevenson 564-5695
99	Small Mammal/ Ectoparasitic Survey	Dry Interior and Coastal Mountains	2 of 3 yrs	RBCM	Distribution, population status, ectoparasites, and plague tests	David Nargosen 387-2933
100	South Okanagan Herpetological Study	Southern Okanagan Valley	2 of 5 yrs	RBCM/ MOE	Species survey, biogeography, and population status	Stan Orchard 387-2940
101	Spatsizi System Study	Spatsizi Provincial Park	1 of 5-10 yrs	SABR/MOF/ BCH/DCF/MOP	Interactions among moose and wolves	David Hadler 846-9172, Irving Fox N423794 (Smithers channel)
102	Wetlands	Lower Fraser	1 of 2 yrs	CWS	Ecosystem distribution, abundance, and dynamics	Peggy Ward 946-8546
103	Wildlife Habitat Handbook	Southern Interior Ecoprovince	7 of 8 yrs	MOF/MOF/ WHC	Assessing forestry impacts on vertebrate habitats using NSI models	Andrew Harcombe 387-9798
104	Wildlife Habitat/ Juvenile Spacing	Cariboo Forest Region	2 of ? yrs	MOF	Impact of juvenile spacing on wildlife habitat	Harold Armleder 398-4407

No.	Species Studied	Location	Status	Agency	Purpose	Contact
75	Townsend's Vole	SFU	2 of 2 yrs	SFU	Predator odour repellants	Markus Merkeus or Alton Harestad 291-4512
76	Tree Swallows	Creston	2 of 2 yrs	SFU	Reproductive success	Dave Wiggins or Nico Verbeek 291-4475
77	Vancouver Island Marmot	Vancouver Island	3 of 3 yrs?	MOE		Andrew Bryant or Doug Janz 758-3952, Bill Munro 387-9764
78	Violet-green and Tree Swallows	Creston	2 of 3 yrs	SFU	Trade-offs between defending nests and guarding mates	Barb Beasley or Nico Verbeek 291-4475
79	Waterfowl	Central Interior and Kootenays	3 of ? yrs	CWS	Distribution abundance	Rick McKelvey 946-8546
80	Waterfowl	Northern B.C.	2 of ? yrs	CWS	Distribution and abundance	W. Nixon (403)-668-2285
81	Waterfowl	B.C.	2 of ? yrs	CWS	Lead poisoning	Phil Whitehead 946-8546
82	Waterfowl/ Estuaries	West Coast Vancouver Island	1 of 2 yrs	CWS	Estuary use and toxic chemicals	Kees Vermeer 356-6537
83	Western Garter Snake	Little Qualicum River	1 of 2 yrs	UVIC	Foraging strategies	Kari Nelson or Pat Gregory 721-7103
84	Western Garter Snake	Creston Valley Wildlife Management Area	2 of 3 yrs	UVIC	Foraging strategies, population monitoring and thermoregulation	Brent Charland or Pat Gregory 721-7103
85	Western Garter Snake	Chilcotin area	ongoing	UVIC	Population dynamics	Pat Gregory 721-7103
86	Western Kingbird	Creston	2 of 2 yrs	SFU	Nest defence	Joanne Sidevius or Nico Verbeek 291-4475
87	Western Painted Turtle	Kikomun Provincial Park	? of ? yrs	UVIC		Pat Gregory or Robert St. Clair 721-7103
88	Western Sandpiper	Tofino, Lower Fraser valley, Panama	3 of ? yrs	CWS	Distribution abundance, population dynamics, and habitat use	Rob Butler 946-8546
89	White-tailed Deer	Pend d'Oreille Valley	12 of ongoing	MOE	Movements, seasonal habitat ranges, and population dynamics	John Gwilliam 354-6163, Guy Woods 354-6341
90	Wood Duck	Creston	2 of 2 yrs	SFU	Intraspecific brood parasitism	Steve Wilson or Nico Verbeek 291-4475